

ABSTRACT OF THE DISCLOSURE

METHOD AND SYSTEM FOR CLOSED CHEST
BLOOD FLOW SUPPORT

A system for assisting flow of blood by a patient's heart. The system includes a transseptal cannula adapted to be inserted percutaneously in the femoral vein and extend through the atrial septum from the right atrium to the left atrium. The system includes a blood pump mechanism having a blood pump for pumping blood received from the transseptal cannula that has been oxygenated at specified flow rates over a range of physiological pressures. The blood pump is connected to the transseptal cannula. The system includes a perfusion cannula adapted to be inserted percutaneously in the femoral artery for returning oxygenated blood to the atrial system of the patient. The perfusion cannula is connected to the blood pump. A method for assisting blood flow by a patient's heart. The method includes the steps of inserting percutaneously in the femoral vein of the patient and extending through the atrial septum from the right atrium to the left atrium a transseptal cannula. Next there is the step of inserting percutaneously in the femoral artery a perfusion cannula for returning oxygenated blood to the arterial system of the patient. Then there is the step of pumping blood with a blood pump connected to the transseptal cannula and the perfusion cannula at specified flow rates over a range of physiological pressures.